

Amendments to the Claims:

1. (Currently amended) A composition comprising calcium phosphate in the form of granules having an x-ray diffraction pattern characteristic of hydroxyapatite, wherein at least 90% of the particles are larger than 10 microns and 90% of the particles are smaller than ~~300~~ 260 microns.

2. (Previously presented) Calcium phosphate according to claim 1, wherein the size of the granules expressed by the median diameter (d_{50}) is between 100 μm and 250 μm .

3. (Previously presented) Calcium phosphate according to claim 1, wherein the apparent noncompressed density of the granules is at least 0.6.

4. (Previously presented) Calcium phosphate according to claim 1, wherein the apparent compressed density of the granules is at least 0.7.

5. (Currently amended) Calcium phosphate according to claim 1, wherein the calcium phosphate granules have a BET specific surface area of between 10 and 100 m^2/g ~~and~~.

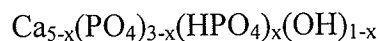
Claims 6-8 (Cancelled).

9. (Previously presented) Calcium phosphate according to claim 1, wherein the calcium phosphate has the following compressibility profile:

- from 15 to 40 KPa for a compression of 30 KN,
- from 10 to 25 KPa for a compression of 20 KN,
- from 3 to 10 KPa for a compression of 10 KN.

10. (Previously presented) Calcium phosphate according to claim 1, wherein the calcium phosphate has a rate of disintegration in water of less than 60 seconds.

11. (Previously presented) Calcium phosphate according to claim 1, wherein the calcium phosphate has the following formula:



where x varies between 0 and 1.

12. (Withdrawn) A process for preparation of calcium phosphate granules having a hydroxyapatite x-ray diffraction pattern comprising (a) treating a brushite dicalcium phosphate suspension having a particle size such that 90% of the particles are smaller than 300 microns and 90% of them are larger than 10 microns with a basic solution, and (b) maintaining the pH of the suspension at least at 7.0, for a period of time sufficient to permit the transformation of brushite calcium phosphate into hydroxyapatite calcium phosphate.

13. (Withdrawn) The process according to claim 12, wherein the size of the particles of brushite dicalcium phosphate is such that the median diameter (d_{50}) is between 100 μm and 250 μm .

14. (Withdrawn) The process according to claim 12, wherein the base used in the basic solution is selected from the group consisting of: NaOH, KOH, and NH_4OH .

15. (Withdrawn) The process according to claim 12, wherein the pH of the brushite dicalcium phosphate suspension is maintained between 7.0 and 10.0.

16. (Withdrawn) The process according to claim 12, wherein the temperature of the brushite dicalcium phosphate suspension is maintained at greater than 50°C during the reaction with the basic solution.

17. (Withdrawn) The process according to claim 16, wherein the temperature of the brushite dicalcium phosphate suspension is maintained at is approximately 90 °C during the reaction with the basic solution.

18. (Withdrawn) The process according to claim 12, wherein a sufficient volume of the base solution is added to achieve 80 to 110% of the stoichiometric quantity expressed with respect to the brushite dicalcium phosphate.

19. (Withdrawn) The process according to claim 12, wherein the brushite dicalcium phosphate suspension is first heated to the chosen reaction temperature then the base solution is introduced while regulating the pH.

20. (Withdrawn) The process according to claim 12, wherein first the base solution is added so as to regulate the pH and then the medium is heated to the chosen reaction temperature.

21. (Withdrawn) The process according to claim 12, wherein the basic solution is added progressively while monitoring the pH to maintain the pH of the suspension within a predefined range.

22. (Withdrawn) The process according to claim 12, further comprising the step of separating the hydroxyapatite calcium phosphate from the aqueous solution by one of filtration or centrifugation.

23. (Withdrawn) The process according to claim 12, further comprising the step of drying the hydroxyapatite calcium phosphate at a temperature between 80 and 120 °C.

Claims 24-33 (Cancelled).